

Abstract of the Disclosure

A method of CRT gamma correction of n-bit color and corresponding device are presented which employ a reduced size lookup table. An n-bit input signal is separated into its m most significant bits and (n-m) least significant bits. Instead of using its full n-bit value as the input address into a $2^n \times n$ lookup table, a $2^m \times n$ table employing only the m most significant bits is used, thereby reducing the memory requirements for the lookup table by a factor of $2^{(n-m)}$. Every cycle, two consecutive memory locations are read, starting from where in the lookup table the m most significant bits of the input signal are pointing. The output of the lookup table provides the n-bit gamma corrected values for each of these m-bit inputs. A interpolation is then formed between these two output values and the n-bit, gamma corrected value of the full n-bit value of the input signal is then interpolated using its (m-n) least significant bits.